

- i. cease all further work, except for such work as OREDA may specify in the notice of termination for the sole purpose of protecting that part of the Project already executed, or any work required to leave the site in a clean and safe condition,
- ii. terminate all subcontracts, except those to be assigned to OREDA pursuant to GCC Clause 5.7.4.1a)i(b),
- iii. remove all Empaneled Vendor's tools and tackles from the site, repatriate the Empaneled Vendor's and its personnel from the site, remove from the site any wreckage, rubbish and debris of any kind, and leave the whole of the site in a clean and safe condition, and
- iv. subject to the payment specified in GCC Clause 42.1.3,
 - (a) deliver to the Consumer the parts of the Project executed by the Empaneled Vendor up to the date of termination, and
 - (b) deliver to OREDA all non-proprietary drawings, specifications and other documents prepared by the Empaneled Vendor as on the date of termination in connection with the Project.
- c) In the event of termination of the Empanelment Order under GCC Clause 5.7.4.1 a), OREDA shall pay to the Empaneled Vendor the following amounts:
 - i. the Empanelment Order Price, properly attributable to the parts of the Project executed by the Empaneled Vendor as of the date of termination

5.7.4.2. Termination for Empaneled Vendor's Default

- a) OREDA, without prejudice to any other rights or remedies it may possess, may terminate the Empanelment Order forthwith in the following circumstances by giving a notice of termination and its reasons therefor to the Empaneled Vendor, referring to this GCC Clause 5.7.4.2:
 - i. if the Empaneled Vendor becomes bankrupt or insolvent, has a receiving order issued against it, compounds with its creditors, or, if the Empaneled Vendor is a corporation, a resolution is passed or order is made for its winding up, other than a voluntary liquidation for the purposes of amalgamation or reconstruction, a receiver is appointed over any part of its undertaking or assets, or if the Empaneled Vendor takes or suffers any other analogous action in consequence of debt
 - ii. if the Empaneled Vendor assigns or transfers the Empanelment Order or any right or interest therein in violation of the provision of GCC Clause 5.7.5.
 - iii. if the Empaneled Vendor, in the judgment of OREDA has engaged in Integrity Violation practices, as defined in GCC Clause 5.1.10.
- b) If the Empaneled Vendor
 - i. has abandoned or repudiated the Empanelment Order
 - ii. has without valid reason failed to commence work on the Project promptly or has suspended the progress of Empanelment Order performance for a prolonged period even after receiving a written instruction from OREDA to proceed
 - iii. persistently fails to execute the Empanelment Order in accordance with the Empanelment Order or persistently neglects to carry out its obligations under the Empanelment Order without just cause

- iv. refuses or is unable to provide sufficient materials, services or labor to execute and complete the Project in the manner specified in the Project Timelines as per SOW Clause 3.4 at rates of progress that give reasonable assurance to OREDA that the Empaneled Vendor can attain Commissioning and Acceptance of the Project,

then OREDA may, without prejudice to any other rights it may possess under the Empanelment Order, give notice to the Empaneled Vendor stating the nature of the default and requiring the Empaneled Vendor to remedy the same. If the Empaneled Vendor fails to remedy or to take steps to remedy the same within fourteen (14) Days of its receipt of such notice, then OREDA may terminate the Empanelment Order forthwith by giving a notice of termination to the Empaneled Vendor that refers to this GCC Clause 5.7.4.2.

- c) Upon receipt of the notice of termination under GCC Clause 5.7.4.2, the Empaneled Vendor shall, either immediately or upon such date as is specified in the notice of termination,
 - i. cease all further work, except for such work as OREDA may specify in the notice of termination for the sole purpose of protecting that part of the Project already executed, or any work required to leave the site in a clean and safe condition,
 - ii. terminate all subcontracts, except those to be assigned to OREDA pursuant to GCC Clause 5.7.4.1(b),
 - iii. deliver to OREDA the parts of the Project executed by the Empaneled Vendor up to the date of termination complete in all respect, and
 - iv. deliver to OREDA all drawings, specifications and other documents prepared by the Empaneled Vendor as on the date of termination in connection with the Project.
- d) OREDA may enter upon the site, expel the Empaneled Vendor, and complete the Project itself or by employing any third party. OREDA may, to the exclusion of any right of the Empaneled Vendor over the same, take over and use with the payment of a fair rental rate to the Empaneled Vendor, with all the maintenance costs to the account of OREDA and with an indemnification by OREDA for all liability including damage or injury to persons arising out of OREDA's use of such Equipment, any Empaneled Vendor's equipment owned by the Empaneled Vendor and on the site in connection with the Project for such reasonable period as OREDA considers expedient to achieve the Commissioning and Acceptance.

Upon completion of the Project or at such earlier date as OREDA thinks appropriate, OREDA shall give notice to the Empaneled Vendor that such Empaneled Vendor's equipment will be returned to the Empaneled Vendor at or near the site and shall return such Empaneled Vendor's equipment to the Empaneled Vendor in accordance with such notice. The Empaneled Vendor shall thereafter without delay and at its cost remove all Empaneled Vendor's tools and tackles from the site, repatriate the Empaneled Vendor's personnel from the site, remove from the site any wreckage, rubbish and debris of any kind, and leave the whole of the site in a clean and safe condition.

- e) Subject to GCC Clause 5.7.4.2 f), the Empaneled Vendor shall be entitled to be paid the Empanelment Order price attributable to the Project executed as of the date of termination, the value of any unused or partially used Project on the site, and the costs, if any, incurred in protecting the Project and in leaving the site in a clean and safe condition pursuant to GCC Clause 5.7.4.2 c) i. Any sums due to OREDA from the Empaneled Vendor accruing prior to the date of termination shall be deducted from the amount to be paid to the Empaneled Vendor under the Empanelment Order.
- f) If OREDA completes the Project, the cost of completing the Project by OREDA shall be determined.

If the sum that the Empaneled Vendor is entitled to be paid, pursuant to GCC Clause 5.7.4.2 e), plus the reasonable costs incurred by OREDA in completing the Project, exceeds the L1 Price mentioned in the Empanelment Order, the Empaneled Vendor shall be liable for such excess.

If such excess is greater than the sums due to the Empaneled Vendor under GCC Clause 5.7.4.2 e), the Empaneled Vendor shall pay the balance to OREDA.

OREDA and the Empaneled Vendor shall agree, in writing, on the computation described above and the manner in which any sums shall be paid.

5.7.4.3. In this GCC Clause 5.7.4, the expression "Project executed" shall include all work executed, Installation Services provided, and all Project acquired, or subject to a legally binding obligation to purchase, by the Empaneled Vendor and used or intended to be used for the purpose of the Project, up to and including the date of termination.

5.7.4.4. In this GCC Clause 5.7.4, in calculating any monies due from OREDA to the Empaneled Vendor, the account shall be taken of any sum previously paid by OREDA to the Empaneled Vendor under the Empanelment Order.

5.7.5. Assignment

5.7.5.1. No Party shall, without the prior consent of the other Party, assign to any Person any benefit of or obligation under this Empanelment Order in whole or in part. Such an assignment, if approved by the other Party, shall not relieve the assigning Party from any obligations, duty, or responsibility under this Empanelment Order.

5.7.5.2. The Empaneled Vendor consents to the creation by OREDA of security over or assignment of its rights and obligations under this Empanelment Order including the Performance Security provided hereunder by the Empaneled Vendor in favour of OREDA.

5.8. Disputes and Arbitration

5.8.1. Mutual Settlement

5.8.1.1. If any dispute or difference shall arise between OREDA and the Empaneled Vendor out of, relating to or in connection with the Empanelment Order (including its existence, breach, termination or validity) or the performance of the Comprehensive Maintenance under the Empanelment Order, it shall, in the first instance be referred to the Chief Executive, OREDA and the Empaneled Vendor's senior management. The Chief Executive, OREDA shall make every effort to amicably resolve the dispute or differences arising between the Parties and provide its written decision within a maximum time period of fifteen (15) Days of the dispute being referred to it by either Party.

5.8.1.2. If the Chief Executive, OREDA has given its written decision to the Parties and no claim to arbitration has been communicated to it by either Party within two (2) Days from receipt of such notice, the said decision shall become final and binding on the Parties.

5.8.1.3. In the event that the Chief Executive, OREDA fails to provide its decision within the above said period after being requested as aforesaid, or in the event that either OREDA or the Empaneled Vendor is dissatisfied with any such decision, either Party may, within fifteen (15) Days after the date on which such decision is required to be provided in accordance with GCC Clause 5.8.1.1, whether the decision is provided by the Chief Executive, OREDA during such period or not, refer the matter to the Energy Secretary to the Government of Odisha for a resolution.

5.8.1.4. The Energy Secretary to the Government of Odisha shall make every effort to amicably resolve the dispute or differences arising between the Parties and provide its written decision within a maximum time period of seven (7) Days of the dispute being referred to it by either Party.

5.8.1.5. In the event that the Energy Secretary to the Government of Odisha fails to provide its decision within the above said period after being requested as aforesaid, or in the event that either OREDA or the Empaneled Vendor is dissatisfied with any such decision, either Party may, within fifteen (15) Days after the date on which such decision is required to be provided in accordance with GCC Clause 5.8.1.4, whether the decision is provided by the concerned Secretary of the admin department to the Government of Odisha during such period or not, refer the matter in dispute to arbitration as hereinafter provided in GCC Clause 5.8.2.

5.8.1.6. The Empaneled Vendor shall continue to perform its obligations under this Contract during this mutual settlement.

5.8.2. Arbitration

5.8.2.1. If disputes or differences between the Parties are not resolved under Clause 5.8.1, the same shall be referred for arbitration under the Indian Arbitration and Conciliation Act, 1996.

5.8.2.2. The arbitral tribunal shall consist of a sole arbitrator, who shall be appointed by the Parties mutually, in accordance with the Arbitration and Conciliation Act, 1996.

5.8.2.3. The Empaneled Vendor shall continue to perform its obligations under this Contract during the arbitration proceedings.

5.8.2.4. The arbitration proceedings shall be in English and shall take place in Bhubaneswar, Odisha. The courts in Bhubaneswar, Odisha shall have jurisdiction on any matter connected with or arising under this Contract. The law governing the arbitration and the process shall be Indian law only.

5.8.2.5. The arbitration shall be the sole and exclusive remedy between the Parties regarding the dispute referred to arbitration and any claims, counterclaims, issues or accountings presented to the tribunal in connection with such dispute.

5.8.2.6. The award rendered in any arbitration commenced hereunder shall be final, conclusive, and binding on the Parties.

5.8.2.7. The Parties hereby undertake to implement the award with an immediate effect.

6. Special Conditions of Empanelment Order (SCC)

Section 6 (SCC) shall supplement the Clauses mentioned in Section 5 (GCC). Whenever there are a conflict or interpretation issues, the provisions herein shall prevail over those in Section 6 (SCC). The Clause number of Section 6 (SCC) is the corresponding Clause number of Section 5 (GCC).

6.1. Specific provisions of GCC

SCC Clause reference	GCC Clause reference	Detailed Clause
6.1.1.	GCC Clause 5.5.2.1	<p>Warranty:</p> <p>The Warranty in respect of the Equipment shall be as follows:</p> <ul style="list-style-type: none"> • Solar photovoltaic modules: Performance Warranty with guaranteed ninety percent (90%) production at the end of 5th year of operation and 80% (eighty percent) at the end of the 25th year of operation from the date of Commissioning of the Project. Product Warranty for a period of five (5) years from the date of Commissioning of the Project. • Inverter: Product Warranty period of five (5) years from the date of Commissioning of the Project. • Module mounting structures: Product Warranty period of five (5) years from the date of Commissioning of the Project. • Balance of system: Product Warranty period of five (5) years from the date of Commissioning of the Project. <p>As a testimony, the Empaneled Vendor must submit the Warranty certificate and service agreement with the OEM/ suppliers prior to achieving Commissioning of the Project. Any defect noticed during the Warranty period should be rectified/ replaced by the Empaneled Vendor either through OEM/ suppliers or by itself, free of cost, upon due intimation by OREDA.</p> <p>In case any OEM/ supplier provides a Warranty period more than five (5) years from the date of Commissioning of the Project, then the Empaneled Vendor shall provide the same to OREDA even if the Warranty period exceeds the CMC Period.</p>

7. Annexure

7.1. Bid Forms – Technical Bid

7.1.1. Bid Form 1 (Bid Processing Fee)

Bid Processing Fee

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, the undersigned, attaching the copy of the Bid Processing Fee paid to the E-procurement Website "www.tenderwizard.com/OREDA".

The Unique Transaction Reference (UTR) no. is [insert the UTR no.], dated [DD MMM YYYY].

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.2. Bid Form 2 (Cost of Bid)

Cost of Bid

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, the undersigned, attaching the copy of the Cost of Bid submitted in the form of Demand Draft.

The Demand Draft no. is [insert], dated [DD MMM YYYY].

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.3. Bid Form 3 (Bid Security)

Bid Security

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive

Odisha Renewable Energy Development Agency (OREDA)

Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.

Email: ceoreda@oredaorissa.com

We, the undersigned, attaching the copy of the Bid Security submitted in the form of [Demand Draft/ Fixed Deposit Receipt/ Bank Guarantee].

The Demand Draft no. is [insert], dated [DD MMM YYYY] (in case of a demand draft), or

The Fixed Deposit Receipt no. is [insert], dated [DD MMM YYYY]. (in case of an FDR)

The Bank Guarantee no. is [insert], dated [DD MMM YYYY]. (in case of a Bank Guarantee)

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

Bid Security (applicable only in case of Bank Guarantee)

(To be submitted on a non-judicial stamp paper of appropriate value as per The Indian Stamp Act, 1899 relevant to the place of execution. The stamp paper shall be purchased in the name of the issuing bank only.)

Bank Guarantee (BG) no.: [insert BG no.]

Date: [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

WHEREAS M/s. [insert name of the Bidder] having its registered office at [insert address] (hereinafter called "the Bidder") wish to submit its Bid for the empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha with reference to Request For Proposal (RFP) no. [insert RFP no.] dated [DD MMM YYYY].

AND WHEREAS it has been stipulated by OREDA in the said RFP that the Bidder shall furnish OREDA with a Bank Guarantee from a nationalized or scheduled commercial bank for the sum specified therein, as Bid Security for compliance with its obligations in accordance with the Bidding Document.

AND WHEREAS we have agreed to give the Bidder such a Bid Security in the form of this Bank Guarantee. NOW THEREFORE we hereby affirm that we are the guarantors and responsible to OREDA on behalf of the Bidder for an amount up to a total of INR [Amount of the Bank Guarantee in words] ([Indian Rupees in figures]) only and we undertake to pay OREDA upon OREDA's first written demand declaring the Bidder to be in default under the various provisions of the Bidding Document and without cavil or argument, any sum or sums within the limits of the amount of Bank Guarantee, as aforesaid, without OREDA's need to prove or to show grounds or reasons for the demand or the sum specified therein. We hereby waive the necessity of your demanding of the said demand from the Bidder before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Bidding Document to be performed thereunder or any of the contract documents which may be made between you and the Bidder shall in any way release us from any liability under this Bank Guarantee and we hereby waive notice of any such change, addition or modification.

This Bank Guarantee shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the issuing bank.

This Bank Guarantee shall be a primary obligation of the issuing bank and accordingly OREDA shall not be obliged before enforcing this Bank Guarantee to take any action in any court or arbitral proceedings against the Bidder, to make any claim against or any demand on the Bidder or to give any notice to the Bidder or to enforce any security held by OREDA or to exercise, levy or enforce any distress, diligence or other processes against the Bidder.

This Bank Guarantee shall be interpreted in accordance with the laws of India and the courts at Bhubaneswar, Odisha shall have exclusive jurisdiction.

This Bank Guarantee shall be effective only when the Bank Guarantee is issued to the account holder "Orissa Renewable Energy Development Agency" in the bank and branch "Axis Bank Ltd., Mancheswar Branch, Bhubaneswar" having the account no. 918010103435005 IFSC code UTIB0001973.

Notwithstanding anything contained herein above our liability under this guarantee is restricted to INR [insert] (Indian Rupees [in words]) only and it shall remain with an expiry date up to [DD MMM YYYY, [insert] months

from the original last date of submission of Bid] with a claim date up to [DD MMM YYYY, 12 months from the date of expiry] and shall be extended from time to time for such period, as may be desired by M/s. [insert the Bidder name] whose behalf this guarantee has been given.

Our branch at [Name and address of the branch] is liable to pay the guaranteed amount depending on the filing of the claim and any part thereof under this Bank Guarantee only and only if you serve upon us at our [Name and address of the branch] branch a written claim or demand and received by us at our [Name and address of the branch] branch, otherwise the bank shall be discharged of all liabilities under this guarantee thereafter.

In witness whereof the Bank, through its authorized officer, has set its hand and stamp on [DD MMM YYYY] at [insert location of signing].

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name and address of the Bank and address of the Branch

Power of attorney no.:

WITNESSES

Signature:

Name:

Address:

Signature:

Name:

Address:

Note:

1. This Bank Guarantee format is prepared in line with the Annexure-II of Finance Department Office Memorandum 4939 dated 13 Feb 2012, Govt of Odisha [Ref Para 22(i1)].
2. Please ensure that each page of the Bank Guarantee is duly signed by the authorized signatory of the issuing bank and stamp of the issuing bank is affixed thereon.
3. Please ensure whether the last page is signed with full particulars including two witnesses under the seal of Bank as required in the prescribed format.
4. Please ensure that the date, purpose of purchase of stamp paper and name of the purchaser are indicated on the back of the stamp paper under the signature of the stamp vendor. The date of purchase of stamp paper shall be not later than the date of execution of the Bank Guarantee.
5. In case of any overwriting, cutting, etc. on the Bank Guarantee have been properly authenticated under signature and seal of the authorized office of the issuing bank.

7.1.4. Bid Form 4 (Power of Attorney)

Power of Attorney

(To be submitted on a non-judicial stamp paper of appropriate value as per The Indian Stamp Act, 1899 relevant to the place of execution. The stamp paper shall be purchased in the name of the Bidder only.)

Signature and stamp of the notary of the place of execution [insert place] dated [DD MMM YYYY]

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

Know all men by these presents, We, [name of the executant(s)], do hereby constitute, appoint and authorize [name of the Authorized Signatory] as the Authorized Signatory presently residing at [residential address of Authorized Signatory] and having PAN [insert PAN no. of Authorized Signatory] who is presently employed with us and holding the designation of [designation of the Authorized Signatory] as our true and lawful representative, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to submission of our Bid for the empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha with reference to the RFP no. [insert RFP no.] dated [DD MMM YYYY] issued by Odisha Renewable Energy Development Agency ("OREDA").

The Authorized Signatory shall represent us and shall be responsible for the signing of the Bid, submission of the Bid and executing all other documents related to this Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which OREDA may require us to submit. The Authorized Signatory is further authorized to make representations to OREDA and provide information/ responses to OREDA, representing us in all matters before OREDA, and generally dealing with OREDA in all matters in connection with our Bid and during the performance of the Empanelment Order.

We hereby agree to ratify all acts, deeds and things are done by our said Authorized Signatory pursuant to this Power of Attorney and that all acts, deeds and things are done by our aforesaid Authorized Signatory shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the Bidding Document.

Signature of the executant

Name:

Designation:

Address:

Company:

Accepted by

Signature of the Authorized Signatory

Name:

Designation:

Address:

Company:

Common seal of [name of the Bidder] is affixed in [my/our] presence pursuant to the provisions mentioned in the clause under "Seal" of the Article of Association.

Board resolution dated [DD MMM YYYY] is attached below.

WITNESS

Signature:

Name:

Address:

Signature:

Name:

Address:

Notes:

1. The mode of execution of the power of attorney shall be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same shall be under the common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by a Board Resolution.
2. The person authorized under this Power of Attorney shall be a person holding the responsible post and designation in the company.
3. The Board Resolution forms a part of the Power of Attorney.

Board Resolution

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.]

CERTIFIED TRUE COPY OF THE RESOLUTION PASSED IN THE MEETING OF THE BOARD OF DIRECTORS OF M/S. [insert name of the Bidder] HAVING ITS REGISTERED OFFICE AT [insert office address of the Bidder] HELD ON [DD MMM YYYY] AT [HHMM] HRS.

Resolved that we, [insert name of the Bidder], do agree to participate in the RFP invited by OREDA vide RFP no. [insert RFP no.] dated [DD MMM YYYY] for the empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha.

RESOLVED FURTHER THAT, [insert name of the Bidder] agrees to unconditionally accept all terms and conditions mentioned in the aforementioned Bidding Document.

RESOLVED FURTHER THAT, Ms./ Mr. [Name of the Authorized Signatory] [is/ are] presently residing at [residential address of Authorized Signatory] and having PAN [insert PAN no. of Authorized Signatory] who is presently employed with us and holding the designation of [designation of the Authorized Signatory] is the Authorized Signatory of [insert name of the Bidder] be and hereby authorized to sign, execute and submit such applications, undertakings, agreements and other requisite documents writings and deeds as may be deemed necessary or expedient to implement the above Project.

AND RESOLVED FURTHER THAT, the common seal of the company is affixed, wherever necessary, in accordance with the applicable procedure laid down by the applicable law and the charter documents.

For [insert name of the Bidder]

Chairman/ Director/ Company Secretary
(Signatory of the Board Resolution)

Name of the Authorized Signatory
Specimen signature of Authorized Signatory

Note: The above signature(s) to be attested by the person signing the resolution

7.1.5. Bid Form 5 (Covering Letter of Technical Bid)

Covering Letter of Technical Bid

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

Sub: Submission of Technical Bid for empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha

Dear [Sir/ Madam],

Having examined the Bidding Document carefully, We, the undersigned, offer to submit herewith the Technical Bid as per the subject line and RFP no. mentioned above.

We are submitting our Bid under [select either Category A to Category B] and we have applied for the following Program:

Package	Category A	Category B
Package 1	Yes/No	Yes/No
Package 2	Yes/No	Yes/No
Package 3	Yes/No	Yes/No
Package 4	Yes/No	Yes/No

We hereby undertake the following:

1. We have read all the provision of the Bidding Document and confirm that notwithstanding anything stated elsewhere in our Technical Bid to the contrary, the provisions of the Bidding Document are acceptable to us and we further confirm that we have not taken any deviation to the provision of the RFP anywhere in our Bid. Acceptance of the above attribute shall be considered as our confirmation that any deviation, variation or additional condition, etc. or any mention, contrary to the provisions of Bidding Document found anywhere in our Technical Bid implicit or explicit shall stand unconditionally withdrawn, without any cost implication whatsoever to OREDA.
2. We further declare that any additional conditions, variations, deviations, if any, in our Bid shall not be given effect to. We further understand that any deficiency or illegibility in our Technical Bid shall result in rejection of our Technical Bid.
3. We hereby declare that all the information and statements made in this proposal are complete, true and correct and also accept that any misinterpretation contained in it may lead to our disqualification and rejection of our Technical Bid. In case of any false documents submitted and found any time in the future, we shall be liable to be proceeded as per Applicable Law.
4. We confirm that we have submitted the Technical Bid as per the instructions given in the Bidding Document.
5. We hereby declare and confirm that only we are submitting our Bid and that our parent, affiliate, the ultimate parent or any group companies with which we have direct or indirect relationships are not separately submitting their Bid.

6. We hereby declare that our application has been submitted in good faith and the information contained is true and correct to the best of our knowledge and belief.
7. We confirm that the Technical Bid submitted are subject to the verification solely by appropriate authorities of OREDA as per all the terms of the Bidding Document and agree that the decision taken by OREDA shall be final and binding on us.
8. We declare that our Technical Bid is fully compliant to the qualification requirement mentioned under Section 4 (QR) and we have not misrepresented any information provided in our Bid.
9. We confirm that any genuine changes made by OREDA in the interest of the Project with respect to the Technical Specifications, Designs and Drawings during the course of performance of the Empanelment Order shall be fully acceptable to us without any cost implication whatsoever to OREDA.
10. We confirm that we will comply with all the Applicable Laws and Prudent Utility Practices all the time during the performance of the Empanelment Order.
11. We confirm that we have submitted the Technical Bid as per the forms given in Bid Form (Technical Bid) and/ or the instructions given in the RFP or E-procurement Website; failure to which our Technical Bid shall be considered as non-responsive and shall be liable for rejection.
12. We agree that We have not submitted any conditional or alternative Technical Bid and in case of any deviation, then our Technical Bid shall be considered as non-responsive and shall be liable for rejection.
13. We confirm that we do not have any conflict of interest in accordance with the provisions of the RFP.
14. We confirm that in case we are directly or indirectly through an agent engaged in Corrupt Practice, Fraudulent Practice, Coercive Practice, Collusive Practice, Obstructive Practice or Integrity Violation, then our Technical Bid shall be considered as non-responsive and shall be liable for rejection.
15. We confirm that OREDA reserves all the right to accept or reject any Technical Bid without assigning any reasons thereof and shall not be held liable for any such action and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
16. We confirm that in case our Bid is accepted, we undertake to provide Contract Performance Securities as specified in the RFP, else our Bid Security shall be forfeited.
17. We agree that this Technical Bid shall remain valid for a period of **One Hundred and Eighty (180)** Days from the original last date of online Bid submission and such further period as may be mutually agreed upon.
18. The Bidding Document has been discussed in the Board meeting and a Board Resolution (BR) no. [insert BR no.] dated [DD MMM YYYY] has been concurred for submission of our Bid and is enclosed as a part of Bid Form 4 (Power of Attorney).
19. We undertake that OREDA shall, without prejudice to any other right or remedy, be at liberty to forfeit the Bid Security deposited by us in case of any default as per the Bidding Document.
20. In case we fail to achieve the milestones of Commissioning and Acceptance of the Project as per the Project Timelines, OREDA shall, without prejudice to any other right or remedy, be at liberty to forfeit the Performance Security.
21. We understand that you are not bound to accept any Technical Bid you may receive.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.6. Bid Form 6 (Technical Qualification)

Technical Qualification – rooftop solar photovoltaic projects

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive

Odisha Renewable Energy Development Agency (OREDA)

Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.

Email: ceoreda@oredaorissa.com

We confirm that we meet the Qualification Requirement mentioned in QR Clause 4.3 of Section 4 (QR) and we have the experience of commissioning rooftop solar photovoltaic projects for a cumulative capacity as mentioned under the “Our experience in kWp” under all the Packages for which it is submitting its Bid, in the last five (5) years from the last date of online submission of the Technical Bid in Odisha as the EPC contractor.

As per QR Clause 4.3.1, our Package wise experience are as follows:

Package	Our experience in kWp	Reference project no.
Package 1		
Package 2		
Package 3		
Package 4		

The details pertaining to the reference projects for Package [insert package no. from 1 to 4]* are given below:

Sr. No.	Item Description	Reference project [insert]**
1.	Project capacity in kWp	[capacity as per joint commissioning certificate/ experience certificate] kWp
2.	Title of the project with a brief of scope	
3.	Name of the client with the full address including the contact no. and email id of the client	Name of the client: Address: Contact no.: Email id:
4.	Name of the ultimate user of solar energy	
5.	Project arrangement	[On-grid net metering, Off-grid, or other (please specify)]
6.	Location of the project and GPS/ Google coordinate	Address of the plant: GPS/ Google coordinate:
7.	I have attached the relevant letter of awards/ work orders/ contract agreement along with any amendments issued in full without deleting/ hiding any information	[Yes/ No]
8.	Details of the letter of awards/ work orders/ contract	Work order no.: Date of work order: [DD MMM YYYY] Whether any liquidated damages been charged by the client? [Yes/ No]. In case of yes, please provide the details.
9.	I have attached the joint commissioning certificate issued by the concerned government authority as per the Prudent Utility Practices followed in Odisha	[Yes/ No]
10.	Details of the joint commissioning certificate	Name of the government authority in Odisha issuing the joint commissioning certificate: [insert]

Sr. No.	Item Description	Reference project [insert]**
		Target date of commissioning: [DD MMM YYYY] Actual date of commissioning: [DD MMM YYYY]

* in case the Bidder is applying for multiple Packages, then the above table shall be reproduced for each Package.

** in case of multiple reference projects, please keep on adding separate columns.

The scan copies of the letter of awards/ work orders/ contract along with the associated joint commissioning certificates are enclosed below:

[Please attached the proof of documents]

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.7. Bid Form 7 (Financial Qualification)

Financial Qualification

(To be submitted on the letterhead of the chartered accountant)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive

Odisha Renewable Energy Development Agency (OREDA)

Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.

Email: ceoreda@oredaorissa.com

I, [insert name of the chartered accountant], confirm that the Bidder, [insert name of the Bidder], meets the Financial Qualification Requirement as mentioned in QR Clause 4.4 of Section 4 (Qualification Requirement). The compliance to the Financial Qualification Requirement is mentioned below, as per our detailed evaluation of the Bidder's latest certified true copy of the audited annual accounts and their work orders related to the solar business.

Average annual turnover (as per QR Clause 4.4.1),

Particulars	Unit	FY16 – 17	FY17 – 18	FY18 – 19
Annual turnover from solar business only#	Lakh INR	[insert]	[insert]	[insert]
Average annual turnover from solar business only#	Lakh INR	[insert]		

other income is not considered

Net Worth (as per QR Clause 4.4.2) (applicable in case of companies),

Particulars	Unit	FY16 – 17	FY17 – 18	FY18 – 19
Aggregate value of the paid-up share capital	Lakh INR	[insert]	[insert]	[insert]
Add: all reserves created out of the profits and securities premium account.	Lakh INR	[insert]	[insert]	[insert]
Subtract: Accumulated losses	Lakh INR	[insert]	[insert]	[insert]
Subtract: Deferred expenditure	Lakh INR	[insert]	[insert]	[insert]
Subtract: Miscellaneous expenditure not written off	Lakh INR	[insert]	[insert]	[insert]
Net Worth*	Lakh INR	[insert]	[insert]	[insert]

Note: It does not include reserves created out of revaluation of assets, write-back of depreciation and amalgamation.

[For partnership firm and sole proprietorship firm, as per the methodology certified by the chartered accountant based on the Applicable Law in India.]

I hereby declare that all the information and statements made in this certificate are complete, true and correct and also accept that any misinterpretation contained in it may lead to cancellation of my CA membership, and I shall be liable to be proceeded as per the Applicable Law.

Place: [insert place]

[sign here]

Signature

Name of Chartered Accountant (CA): [insert name]

Designation: [insert designation]

Name of the firm of the CA: [insert Bidder's legal entity name]

CA membership no.: [insert CA membership no.]

Registration no. of the CA's firm:

Seal: [insert seal of the Bidder]

7.1.8. Bid Form 8 (Test Certificates)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, the undersigned, declare that the “**Test Certificates**” for the Equipment will be issued to us from the valid MNRE/ NABL/ BIS authorized Test Labs, pursuant to the requirements as mentioned in QR Clause 4.2.1.

Sl. No.	Major Component	Test Certificates Required	Test description	Designated Test Labs
1	Crystalline Silicon Terrestrial PV Modules	IEC 61215	Design qualification	MNRE/NABL/BIS authorized Test Labs
		IEC 61730	Safety Qualification	MNRE/NABL/BIS authorized Test Labs
		IEC 61701	Salt Mist Corrosion Test	MNRE/NABL/BIS authorized Test Labs
2	Power Conditioning Units (PCU)/ Inverter*	IEC 61683	Efficiency Test	MNRE/NABL/BIS authorized Test Labs
		IEC 60068	Environmental Test	MNRE/NABL/BIS authorized Test Labs
		IEC 62116	Anti-Islanding Protection	MNRE/NABL/BIS authorized Test Labs
		IEC 61727	Grid Interconnection	MNRE/NABL/BIS authorized Test Labs
		IP 65/54	Ingress Protection for Outdoor/Indoor Enclosure	MNRE/NABL/BIS authorized Test Labs

Note: The proof of all documents showcasing the possession of such copies of the Test Certificates by the Bidder shall be submitted as per the instructions given under the Letter of Intent and not at the time of bidding.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.9. Bid Form 9 (Self-certificate)

Self-certificate

(To be submitted on a non-judicial stamp paper of appropriate value as per The Indian Stamp Act, 1899 relevant to the place of execution. The stamp paper shall be purchased in the name of the Bidder only.)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive

Odisha Renewable Energy Development Agency (OREDA)

Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.

Email: ceoreda@oredaorissa.com

We, the undersigned, confirm and certify that we have not been debarred/ blacklisted/ defaulted by any Government, agency, Public Sector Undertaking (PSU), institution/ autonomous organizations in the past. We have not acted in concert or in collusion with any other Bidder or other person(s) and also not done any act, deed or thing which is or could be regarded as anti-competitive.

I/we hereby declare the following in the context of the aforementioned tender that:

In case of any false documents submitted and found in the future, we shall be liable to be proceeded against as per the Applicable Law.

In case of any such events, we have provided the case details and their current status below. ~~strike-off this line, in case it is not applicable~~.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.10. Bid Form 10

Undertaking for Indigenoussness

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive

Odisha Renewable Energy Development Agency (OREDA)

Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.

Email: ceoreda@oredaorissa.com

We, [insert the Bidder name], hereby certify and confirm that the solar modules and solar cells to be supplied under this Project shall be indigenous, as per the relevant guidelines of the Ministry of New and Renewable Energy (MNRE), Government of India.

The relevant certificates are enclosed herewith.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.11. **Bid Form 11 (No Deviation Certificate)**

No Deviation Certificate

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, [insert the Bidder name], hereby certify and confirm that we have read the clauses and provisions of the RFP, Addendums, Corrigendum, etc. issued thereafter and the stipulation of all clauses and provisions are acceptable to us, and we have not taken any deviation whatsoever to any of the clauses and provisions.

*In case the Bidder has taken any deviation, then the same shall be mentioned here.

Clause No.	Deviations considered, if any

[*strike-off, if not applicable]

We further confirm that we are aware that our Bid would be liable for rejection in case any material misrepresentation is made or discovered with regard to the requirements of this RFP at any stage of the bidding process or thereafter during the performance of the Empanelment Order.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.12. Bid Form 12 (Registration details)

Registration details

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, the undersigned, attaching the Certificate of Incorporation, Memorandum of Association (MOA) and Article of Association (AOA) [applicable in case of companies]. The **AOA** (if applicable) shall mention the company's operations and defines the company's purpose from the SOW point of view

or

We, the undersigned, attaching the Partnership Deed [applicable in case of partnership firm].

or

We, the undersigned, attaching the proof of having the bank account or any other document as issued by the Government [applicable in case of sole proprietorship firm].

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.13. **Bid Form 13 (PAN)**

PAN

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, the undersigned, attaching the copy of the PAN card.

The PAN is [insert PAN].

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.14. **Bid Form 14 (GST Certificate)**

GST Certificate

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, the undersigned, attaching the copy of the GST Certificate.

The GST no. is [insert GST no.] and the place of GST registration is for the state of [insert state name].

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.15. **Bid Form 15 (Income Tax Return)**

Income Tax Return

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, the undersigned, attaching the copy of the Income Tax Return for the last three (3) assessment years for AY2020, AY2019 and AY2018.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.1.16. **Bid Form 16 (Quality Assurance)**

Quality Assurance

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, the undersigned, declares that we have a copy of the ISO certificate for ISO 9001 and will submit the copy of the ISO 14001 and ISO 27001 certificates in the name of the Original Equipment Manufacturer (OEM), supported by a letter of authorization from the OEM, as per QR Clause 4.2.2.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

Note: The documentary evidences shall be submitted as a part of response to the Letter of Intent and prior to issuance of the Empanelment Order, and not at the time of bidding.

7.1.17. Bid Form 17 (Summary of the Bidder)

Summary of the Bidder

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

We, the undersigned, attaching the summary of [insert name of the Bidder] in excel format.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.2. Bid Forms – Price Bid

7.2.1. Bid Form 18 (Covering Letter of Price Bid)

Covering Letter of Price Bid

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive

Odisha Renewable Energy Development Agency (OREDA)

Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.

Email: ceoreda@oredaorissa.com

Sub: Submission of Price Bid for empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha

Dear [Sir/ Madam],

Having examined the Bidding Document carefully, We, the undersigned, offer to submit herewith the Price Bid as per the subject line and RFP no. mentioned above.

We agree that this Price Bid shall remain valid for a period of One Hundred and Eighty (180) Days from the original last date of online Bid submission and such further period as may be mutually agreed upon.

We have read all the provision of the Bidding Document and confirm that notwithstanding anything stated elsewhere in our Price Bid to the contrary, the provisions of the Bidding Document are acceptable to us and we further confirm that we have not taken any deviation to the provision of the RFP anywhere in our Bid. Acceptance of the above attribute shall be considered as our confirmation that any deviation, variation or additional condition, etc. or any mention, contrary to the provisions of Bidding Document found anywhere in our Price Bid implicit or explicit shall stand unconditionally withdrawn, without any cost implication whatsoever to OREDA.

We further declare that any additional conditions, variations, deviations, if any, in our Bid shall not be given effect to. We further understand that any deficiency or illegibility in our Price Bid shall result in rejection of our Price Bid.

We hereby declare that all the information and statements made in this proposal are complete, true and correct and also accept that any misinterpretation contained in it may lead to our disqualification and rejection of our Price Bid.

We hereby declare that our application has been submitted in good faith and the information contained is true and correct to the best of our knowledge and belief.

We agree with the following:

1. We confirm that the Price Bid submitted are subject to the verification solely by appropriate authorities of OREDA as per all the terms of the Bidding Document and agree that the decision taken by OREDA shall be final and binding on us.
2. We declare that our Price Bid is fully compliant as per the terms of the Bidding Document.
3. We confirm that we have submitted the Price Bid in Indian Rupees only and the Price Bid will be considered up to two places of decimal only.
4. We confirm that any genuine changes made by OREDA in the interest of the Project with respect to the Technical Specifications, Designs and Drawings during the course of performance of the Empanelment Order shall be fully acceptable to us without any cost implication whatsoever to OREDA.

5. We confirm that we will comply with all the Applicable Laws and Prudent Utility Practices all the time during the performance of the Empanelment Order.
6. We confirm that we have submitted the Price Bid as per the forms given in Bid Form (Price Bid) and/ or the instructions given in the RFP or E-procurement Website; failure to which our Price Bid shall be considered as non-responsive and shall be liable for rejection.
7. We agree that We have not submitted any conditional or alternative Price Bid and in case of any deviation, then our Price Bid shall be considered as non-responsive and shall be liable for rejection.
8. We confirm that we have not mentioned the Price Bid anywhere other than the Price Bid on the E-procurement Website for further evaluation. If we submit the Price Bid on the E-procurement Website that is not in line with the instructions mentioned therein, then the Price Bid shall be considered as non-responsive and shall be liable for rejection.
9. We confirm that we do not have any conflict of interest in accordance with the provisions of the RFP.
10. We confirm that in case we are directly or indirectly through an agent engaged in Corrupt Practice, Fraudulent Practice, Coercive Practice, Collusive Practice, Obstructive Practice or Integrity Violation, then our Price Bid shall be considered as non-responsive and shall be liable for rejection.
11. We understand that you are not bound to accept any Price Bid you may receive.
12. We confirm that OREDA reserves all the right to accept or reject any Price Bid without assigning any reasons thereof and shall not be held liable for any such action and hereby waive, to the fullest extent permitted by applicable law, our right to challenge the same on any account whatsoever.
13. We confirm that in case our Bid is accepted, we undertake to provide Contract Performance Securities as specified in the RFP, else our Bid Security shall be forfeited.
14. The rates quoted by us are firm, final and are meant for execution of the allotted supply/ installation within the time frame stipulated in the tender/ supply/ installation order.
15. We shall be responsible for the payment of the respective taxes to the appropriate authorities and should I/we fail to do so, I/we hereby authorize OREDA to recover the taxes due from us and deposit the same with the appropriate authorities on their demand.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.2.2. Bid Form 19 (Price Bid - Category A Bidder)

Price Bid - Category A Bidder

(Sample Format)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

Particulars	Description			
Name of the present RFP	Empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha			
Name of the Bidder	[insert the Bidder name]			
Category of the Bidder	Category A			
Package no. (select the Package from the dropdown menu)	Package no. [1,2,3,4]			
Price Bid – RTS				
Sl. No.	Particulars	Label	Price in INR per kWp	Price in INR per kWp (in words)
1	Cost of design, engineering and supply of Equipment for On-Grid Rooftop Solar (RTS) as per the Technical Specification and all terms given in the RFP	A	INR [insert]	Indian Rupees [insert] only
2	Cost of Installation, Commissioning and Acceptance of the Project	B	INR [insert]	Indian Rupees [insert] only
3	CMC Charges for 5 Years @ ten percent (10%) of the Sl. 1 and Sl. 2	C = 10% * (A+B)	To be auto calculated	
4	System Cost (RTS)	D = A+B+C	To be auto calculated	

Note:

1. This format to be filled in the e-tender website as per the instruction given in the RFP.
2. The Tax on the L1 Price shall be paid by the Consumer as per the prevailing rules in India at the time of invoicing.

7.2.3. Bid Form 20 (Price Bid - Category B Bidder)

Price Bid - Category B Bidder

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

Particulars	Description
Name of the Project	Empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha
Name of the MSME Bidder	[insert the Bidder name]
Category of the Bidder	Category B
Package no.	Package no. [1, 2, 3, 4]
Whether the Bidder is willing to accept the L1 Price as per the RFP	[Please select either Yes or No]

Note:

1. This format to be filled in the e-tender website as per the instruction given in the RFP.
2. The Tax on the L1 Price shall be paid by the Consumer as per the prevailing rules in India at the time of invoicing.

7.3. Letter of Intent Forms

7.3.1. LOI Form 1 (Letter of Intent)

Letter of Intent

(To be submitted on the letterhead of OREDA)

Letter of Intent no.: [insert Letter of Intent no.] dated [DD MMM YYYY]

From

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

To

[Bidder name]

[Address]

Sub: Letter of Intent to the Successful Bidders for empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha

Reference:

1. NIT no. [insert NIT no.] dated [DD MMM YYYY]
2. RFP no. [insert NIT no.] dated [DD MMM YYYY]

With reference to the above, you have been selected as the Successful Bidder and you are requested to submit the following critical documents within a maximum period of fifteen (15) Days from the date of issue of this Letter of Intent, without any fail, else your Bid shall be liable for rejection and the Bid Security submitted to us shall be forfeited.

Sl. No	Critical documents
1.	Acceptance to the Letter of Intent by signing the copy of the Letter of Intent along with an official seal, date, and submission to OREDA
2.	Submission of Performance Security as per ITB Clause 1.6.2
3.	Valid Test Certificates of the solar photovoltaic module and inverter along with datasheets of all other Equipment of the Project for the implementation of RTS, as given in the Bid Form 8.
4.	Contact information of various OEMs for the solar photovoltaic module, inverter and balance of systems of the Project for the implementation of RTS(s).
5.	Design document of the module mounting structure and pole mounting structure of the Project for the implementation of RTS along with a STAD pro analysis report as a part of the mandatory submission.

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.3.2. LOI Form 2 (Performance Security)

Performance Security (in the form of a Bank Guarantee)

(To be submitted on a non-judicial stamp paper of appropriate value as per The Indian Stamp Act, 1899 relevant to the place of execution. The stamp paper shall be purchased in the name of the issuing bank only.)

Bank Guarantee (BG) no.: [insert BG no.]

Date: [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

WHEREAS M/s. [insert name of the Successful Bidder] having its registered office at [insert address] (hereinafter called "the Successful Bidder") has been selected as the Successful Bidder for the selection as an Engineering, Procurement and Construction (EPC) Successful Bidder for empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha with reference to Request For Proposal (RFP) no. [insert RFP no.] dated [DD MMM YYYY] and Letter of Intent (LOI) no. [insert LOI no.] dated [DD MMM YYYY].

AND WHEREAS it has been stipulated by OREDA in the said Bidding Document that the Successful Bidder shall furnish OREDA with a Bank Guarantee from a nationalized or scheduled commercial bank for the sum specified therein, as Performance Security for compliance with its obligations in accordance with the Bidding Document, the Letter of Intent and the Empanelment Order to be issued by OREDA.

AND WHEREAS we have agreed to give the Successful Bidder such a Performance Security in the form of this Bank Guarantee. NOW THEREFORE we hereby affirm that we are the guarantors and responsible to OREDA on behalf of the Successful Bidder for an amount up to a total of INR [Amount of the Bank Guarantee in words] ([Indian Rupees in figures]) only and we undertake to pay OREDA upon OREDA's first written demand declaring the Successful Bidder to be in default under the various provisions of the Bidding Document and/ or the Empanelment Order to be issued by OREDA and without cavil or argument, any sum or sums within the limits of the amount of Bank Guarantee, as aforesaid, without OREDA's need to prove or to show grounds or reasons for the demand or the sum specified therein. We hereby waive the necessity of your demanding of the said demand from the Successful Bidder before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Bidding Document and/ or the Empanelment Order to be issued by OREDA to be performed thereunder or any of the contract documents which may be made between you and the Successful Bidder shall in any way release us from any liability under this Bank Guarantee and we hereby waive notice of any such change, addition or modification.

This Bank Guarantee shall not be affected in any manner by reason of merger, amalgamation, restructuring or any other change in the constitution of the issuing bank.

This Bank Guarantee shall be a primary obligation of the issuing bank and accordingly OREDA shall not be obliged before enforcing this Bank Guarantee to take any action in any court or arbitral proceedings against the Successful Bidder, to make any claim against or any demand on the Successful Bidder or to give any notice to the Successful Bidder or to enforce any security held by OREDA or to exercise, levy or enforce any distress, diligence or other processes against the Successful Bidder.

This Bank Guarantee shall be interpreted in accordance with the laws of India and the courts at Bhubaneswar, Odisha shall have exclusive jurisdiction.

This Bank Guarantee shall be effective only when the Bank Guarantee is issued to the account holder “Orissa Renewable Energy Development Agency” in the bank and branch “Axis Bank Ltd., Mancheswar Branch, Bhubaneswar” having the account no. 918010103435005 IFSC code UTIB0001973.

Notwithstanding anything contained herein above our liability under this guarantee is restricted to INR [insert] (Indian Rupees [in words]) only and it shall remain with an expiry date up to [DD MMM YYYY, [insert] months from the original last date of submission of Bid] with a claim date up to [DD MMM YYYY, 12 months from the date of expiry] and shall be extended from time to time for such period, as may be desired by M/s. [insert the Successful Bidder name] whose behalf this guarantee has been given.

Our branch at [Name and address of the branch] is liable to pay the guaranteed amount depending on the filing of the claim and any part thereof under this Bank Guarantee only and only if you serve upon us at our [Name and address of the branch] branch a written claim or demand and received by us at our [Name and address of the branch] branch, otherwise the bank shall be discharged of all liabilities under this guarantee thereafter.

In witness whereof the Bank, through its authorized officer, has set its hand and stamp on [DD MMM YYYY] at [insert location of signing].

(Signature of the authorized officer of the Bank)

Name and designation of the officer

Seal, name and address of the Bank and address of the Branch

Power of attorney no.:

WITNESSES

Signature:

Name:

Address:

Signature:

Name:

Address:

Note:

1. This Bank Guarantee format is prepared in line with the Annexure-II of Finance Department Office Memorandum 4939 dated 13 Feb 2012, Govt of Odisha [Ref Para 22(i1)].
2. Please ensure that each page of the Bank Guarantee is duly signed by the authorized signatory of the issuing bank and stamp of the issuing bank is affixed thereon.
3. Please ensure whether the last page is signed with full particulars including two witnesses under the seal of Bank as required in the prescribed format.
4. Please ensure that the date, purpose of purchase of stamp paper and name of the purchaser are indicated on the back of the stamp paper under the signature of the stamp vendor. The date of purchase of stamp paper shall be not later than the date of execution of the Bank Guarantee.
5. In case of any overwriting, cutting, etc. on the Bank Guarantee have been properly authenticated under signature and seal of the authorized office of the issuing bank.

7.3.3. LOI Form 3 (Sample format for CMC)

Sample format for Comprehensive Maintenance Contract (CMC)

CMC ref no: [insert]

Date: [DD MMM YYYY]

Sub: Empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha

Ref:

1. NIT no. [insert] dated [DD MMM YYYY]
2. RFP no. [insert] dated [DD MMM YYYY]
3. Letter of Intent no. [insert] dated [DD MMM YYYY]
4. Empanelment Order no. [insert] dated [DD MMM YYYY]

The Comprehensive Maintenance Contract (CMC) is signed jointly between the two (2) Parties on this [insert] day of [insert] month in the year [insert] at Bhubaneswar, Odisha and shall come into force from the date of its signing.

CMC for maintenance of Project consisting of Rooftop Solar (RTS) supplied and installed by M/s [insert the name of the Successful Bidder] for a CMC Period of five (5) years from the date of Commissioning of the Project.

This CMC is executed between Odisha Renewable Energy Development Agency (OREDA) having registered office at S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha, herein after called as the First Party and M/s [insert the name of the Successful Bidder] having registered office at [insert address of the Successful Bidder] herein after called as Second Party, for the maintenance of the Project [insert] for a period of five (5) years from the date of Commissioning of the Project, as per the details of the Project [insert] provided herein:

Package	Capacity of RTS in kWp
Package 1	[insert]
Package 2	[insert]
Package 3	[insert]
Package 4	[insert]

The Second Party will maintain the Project as per the terms and conditions mentioned here under:

1. It has been envisaged in the Empanelment Order under Article [insert] that the Project shall be warranted against any manufacturing defect and bad workmanship during the CMC Period of five (5) years from the date of Commissioning of the Project. As these Projects have been Commissioned after issuance of a Joint Commissioning Certificate. Hence, the Second Party is fully responsible for their trouble-free maintenance and the Second Party is liable to rectify/ remove any defect noticed within the aforesaid CMC Period, free of cost.
2. The Second Party will impart training to at least two (2) designated persons from the organization be able to provide first aid repair service for the SPV systems.
3. The Performance Security has been submitted only in the form of the Bank Guarantee and the Bank Guarantees were issued in favour of Chief Executive, OREDA payable at Bhubaneswar, Odisha for an amount, expiry date and claim date as mentioned in clause 2.1.8.

4. The CMC includes repair/ replacement of all spares, consumable and all the Equipment including but not limited to solar photovoltaic module, inverter and balance of systems during the CMC Period.
5. The Second Party shall undertake corrective maintenance upon registration of complaint by Consumer at CRC-OREDA. After attending to the defect, the Second Party shall upload the required documents at ReSolve mobile application for successful closure of the complaints. The Second Party shall ensure rectification of defects and restore functionality within seven (7) Days of lodging the complaints.
6. The Second Party shall undertake scheduled maintenance work as per the prescribed format attached in Annexure Clause 7.5.6 and upload the required details and documents in the ReSolve mobile application strictly according to the given schedule.
7. The Second Party shall apprise the First Party about the requirements and supply of spares during warranty as well as CMC Period.
8. Annual report from CRC-OREDA shall be considered as token of verification of maintenance done and release of annual payment of CMC in arrears upon completion of each year of CMC Period.
9. It will be the liberty of the First Party to crosscheck the systems maintained by the Second Party. Random verification of the maintenance may be carried out by the First Party wherever necessary.
10. The Second Party may continue to maintain the gadgets after expiry of the CMC Period of ten (5) years from the date of Commissioning of the Project, provided the Department/ First Party desires.
11. For adjudication of any dispute between the two (2) Parties arising on execution of this CMC, the matter shall first be brought to the notice of Chief Executive, OREDA.
12. In case there will be no amicable settlement of the issues, the matter can be referred to the court of law having jurisdiction at Bhubaneswar, Bhubaneswar only.

For and on behalf of Odisha Renewable Energy Development Agency (First Party),

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory of OREDA: [insert name]

Designation: [insert designation]

Odisha Renewable Energy Development Agency

Seal: [insert seal of the Bidder]

For and on behalf of M/s (Second Party)

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.4. Pre-bid Form

Pre-bid queries

(To be submitted on the letterhead of the Bidder)

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

To

The Chief Executive
Odisha Renewable Energy Development Agency (OREDA)
Address: S-3/59, Mancheswar Industrial Estate, Bhubaneswar - 751010, Odisha.
Email: ceoreda@oredaorissa.com

Sub: Submission of pre-bid queries for empanelment of vendors for implementation of Phase – II of MNRE's Grid Connected Rooftop Solar Program in Odisha

We are pleased to submit the following pre-bid queries:

Sl. No.	Clause no.	Page no.	Clause	Clarification sought	Rationale
1					
2					
3					
4					
5					

Place: [insert place]

[sign here]

Signature

Name of Authorized Signatory: [insert name]

Designation: [insert designation]

Name of the Bidder: [insert Bidder's legal entity name]

Seal: [insert seal of the Bidder]

7.5. Appendix to SOW - RTS

7.5.1. Appendix Form 1 (Technical Specifications)

7.5.1.1. Solar photovoltaic (PV) modules:

- a) The solar PV modules to be used shall be made in India only. The PV modules shall qualify for the latest edition of the IEC PV module qualification test or equivalent BIS standards of crystalline silicon solar cell modules IEC 61215 and IS14286. In addition, the solar PV modules shall conform to the IEC 61730 Part-2 requirements for construction and Part-2 requirements for testing, safety qualification or equivalent IS. The solar PV module shall also conform to the IEC 61701 (salt mist corrosion testing) standards.
- b) The total solar PV array capacity shall not be less than the required capacity and should comprise of solar crystalline PV modules of minimum 300Wp and above wattage each with 72 cells.
- c) Protective devices against surges at the solar PV module shall be provided. Low voltage drop bypass diodes shall also be provided.
- d) Solar PV modules shall be tested and approved by one of the MNRE/ IEC authorized test centers.
- e) The module frame shall be made of corrosion-resistant materials, preferably having anodized aluminum and should have a minimum thickness of 1.5 mm and width 40 mm for sustainability.
- f) Other general specification for the PV modules and subsystems shall be the Following as
 - i. The rated output power of any supplied module shall have a tolerance of +/-3%.
 - ii. The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series-connected modules) shall not vary by more than 2 (two) percent from the respective arithmetic means for all modules and/or for all module strings, as the case may be.
 - iii. The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for the provision of the by-pass diode. The box shall have hinged, weatherproof lid with captive screws and cable gland entry points or may be of a sealed type and IP-21/20 rated.
 - iv. I-V & P-V curves at STC will be provided after installation.
 - v. PV modules used in solar power plants must be warranted for output wattage, which should not be less than 90% at the end of 5 years and 80% at the end of 25 years.
- g) Modules should have an RF identification tag. The following information will be mentioned in the RFID used on each module (This can be inside or outside the laminate but must be able to withstand harsh environmental conditions).
 - i. Name of the manufacturer of the PV module
 - ii. Name of the manufacturer of Solar Cells.
 - iii. Month & year of the manufacture (separate for solar cells and modules)
 - iv. Country of origin (separately for solar cells and module)
 - v. I-V curve for the module Wattage, I_m , V_m and FF for the module
 - vi. Unique Serial No and Model No of the module

- vii. Date and year of obtaining the IEC PV module qualification certificate.
- viii. Name of the test lab issuing IEC certificate.
- ix. Other relevant information on traceability of solar cells and module as per ISO 9001 and ISO 14001.

7.5.1.2. ARRAY/MODULE MOUNTING STRUCTURE:

- a) Hot-dip galvanized MS/Aluminum mounting structures shall be used for mounting the modules/ panels/arrays. Each structure will have an angle of inclination as per the site conditions to take maximum insolation.
- b) The Mounting structure must be Non-invasive Ballast Type and any sort of penetration of the roof to be avoided. The design details are as follows:
 - i. The inclination of the module or tilt angle should be within 10-15 degrees.
 - ii. The upper edge of the module must be covered with a windshield so as to avoid bulk air ingress below the module. Slight clearance must be provided on both edges (upper & lower) to allow air for cooling.
 - iii. An indicative drawing is shown at Appendix Form 2.
- c) The mounting structure should be as per the latest IS 2062: 1992 and galvanization of the mounting structure shall be in compliance with the latest IS 4759.
- d) The fasteners should be made up of stainless steel. The structures shall be designed to allow easy replacement of any module. The array structure shall be so designed that it will occupy minimum space without sacrificing the output from the SPV panels.
- e) The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m². The load shall be well distributed so that point loads are well within the limits.
- f) The minimum clearance of the structure from the roof level should be in between 70-150 mm.
- g) The structures should be laid on the rooftop on weather resistant FRP mountings which should be non-penetrating type and proper drainage of rainwater over the terrace through the installation area should be maintained.
- h) The structures should be suitably loaded with reinforced concrete blocks of appropriate weight made out of the M25 concrete mixture.
- i) Special care should be taken while designing all structures for modules to cater to heavy rainfall.
- j) The array shall be located sufficiently inside the boundary wall of the terrace (parapet wall) and should not be projecting out. PV array shall be installed in the terrace space free from any obstruction and/or shadow. PV array shall be installed utilizing optimum terrace space to minimize the effects of shadows due to adjacent PV panel rows.
- k) Adequate spacing shall be provided between two-panel frames and rows of panels to facilitate personnel protection, ease of installation, replacement, cleaning of panels and electrical maintenance.
- l) Additional waterproofing shall be provided in the areas where RCC blocks are placed on the terrace.
- m) The minimum clearance between the lower edge of PV panel and terrace ground level shall be 150 mm to allow ventilation for cooling, also ease of cleaning and maintenance of panels as well as cleaning of the terrace.
- n) The PV array structure design shall be appropriate with a factor of safety of min. 1.5.

- o) Each array may be provided with two bird repellents spikes at a level higher than the upper edge of the array. The location of the spike should be selected for the minimum shadow effect.
- p) The support structure shall be free from corrosion when installed.
- q) PV modules shall be secured to support structure using screw fasteners and/or metal clamps. Screw fasteners shall use existing mounting holes provided by module manufacturers. No additional holes shall be drilled on module frames. Module fasteners/clamps shall be adequately treated to resist corrosion.
- r) Adequate spacing shall be provided between any two modules secured on PV array for improved wind resistance.
- s) The structure shall be designed to withstand operating environmental conditions for a period of a minimum of 25 years.
- t) The structure should be appropriately designed to withstand high wind velocities more than 200 km per hour. (The bidder is required to submit a certificate from an authorized chartered engineer with regards to the strength and durability of the structure)

7.5.1.3. ARRAY/ MAIN JUNCTION BOXES (JBs):

- a) The Junction Boxes (JBs) made of GRP/FRP/Polycarbonate /Powder Coated Aluminum /cast aluminum alloy with full dust, water & vermin proof arrangement shall be provided. All wires/cables shall be terminated through Copper cable lugs. The JB shall be such that input & output termination can be made through suitable cable glands.
- b) Copper bus bars/terminal blocks housed in the junction box with suitable termination threads Conforming to IP65 standard and IEC 62208 Hinged door/ Screw based cover with EPDM rubber gasket to prevent water entry. Single/ double compression cable glands.
- c) Fuse protection should be provided for each string for +ve cables.
- d) Each Junction Box shall have High-quality Suitable capacity Metal Oxide Varistors (MOVs) / SPDs. The Junction Boxes shall have suitable arrangement monitoring and disconnection for each of the groups.
- e) Suitable markings should be provided on the bus bar for easy identification and suitable cable glands with ferrules must be fitted at the cable termination points for identification.
- f) Array Junction Box should be IP 65(for outdoor)/ IP 54(for indoor) as per IEC 60529 and should be provided with fuses and Isolators of suitable ratings.
- g) ACDB should have a surge protection device of class 2 as per IEC 60947/60364-5-53, to protect inverters from surges in the AC line.
- h) AJBs/ MJBs may be kept below the modules. In case of need, this can be installed on the wall or rooftop. ACDB should be put at safe distance from DCDB/ AJBs/ MJBs to avoid Eddy current interference. However, in the case of an integrated product where ACDB and DCDB are already placed together shall be acceptable.

7.5.1.4. POWER CONDITIONING UNIT (PCU)

As SPV array produces direct current electricity, it is necessary to convert this direct current into alternating current and adjust the voltage levels before powering equipment designed for nominal mains AC supply. Conversion shall be achieved using an electronic Inverter and the associated control and protection devices. All these components of the system are termed the "Power Conditioning Unit" OR simply PCU. In addition, the PCU shall also house MPPT (Maximum Power Point Tracker), an interface between Solar PV array & the Inverter, to maximize Solar PV array energy input into the System. PCU should conform IEC 61683, IEC 60068, IEC 62116as per specifications.

PCU refers to a combination of the charge controller, inverter and AC charger and shall be supplied as an integrated unit or separate units.

a) Inverter:

The inverter will be highly efficient. The inverter should confirm IEC 61683 /IS 61683, IS 16169/IEC 62116, IEC 60068 and should be based on MPPT design. Inverters would display its own parameters. Beyond the maximum load, the inverters will trip. The inverters should be designed to be completely compatible with the charge controllers and distribution panels and are of integrated design.

Salient features of the Inverters shall be as follows:

The PCU should be designed to be completely compatible with the SPV array voltage.

- i. A central inverter with MPPT shall be used with the power plant for maximum efficiency and shall be efficient based on PWM with IGBT/ reliable power-based design.
- ii. The sine wave output of the inverter shall be 230V, Single phase, 50 HZ AC 415 V, 3 phase, 50 Hz AC.
- iii. The peak inverter efficiency inclusive of built-in isolation transformer shall exceed 85% at full load
- iv. There should be provision to export excess PV power to the grid in case the load consumption is less than the actual generation. This is a futuristic feature and provision should be there to enable or disable this export feature.
- v. Inverter shall provide display of PV array DC voltage & current, Inverter Voltage & Current, Grid voltage & Current and required parameters when a fault occurs. Remote monitoring of inverter parameters should be possible.
- vi. Operating temperature range shall be 0 to 55 deg C
- vii. Maximum Power Point Tracker (MPPT) shall be integrated into the power conditioner unit to maximize energy drawn from the Solar PV array.
- viii. The charge controller/ MPPT units should qualify for IEC standards.
- ix. Online microprocessor-based Data Acquisition Systems and Remote Monitoring facility for 365 Days with data Recovery from a remote location should equip.

Inverter Capacity	1-Phase, 230 V or 3 Phase, 415 V
Output frequency	50 Hz +/- 0.5 Hz
Overload Capacity	150% for 10 Second
Efficiency	80% at 50% of load and More than 90% at full load 0.8 PF
Short Circuit Protection	Circuit Breaker and Electronics protection against sustained fault.
Total Harmonic Distortion	Less than 3%
Over Voltage	Automatic Shut Down
AC over Current/Load	Automatic Shut Down
Protection	<ul style="list-style-type: none"> • Over Voltage both at Input & Output • Over Current both at Input & Output • Over Frequency Surge voltage inducted at the output due to external source.
Protection Degree	IP20/IP21
Instrumentation & Indication	Input & Output voltage, Input & Output Current, Frequency, Power output, different status of inverter, kind of fault by the audio signal.

7.5.1.5. PROTECTION:

The SPV power plant should be provided with Lightning and over-voltage protection, connected with proper earth pits. The main aim of overvoltage protection is to reduce the overvoltage to a tolerable level before it reaches the PV or other sub-system components. The source of overvoltage can be lightning or other atmospheric disturbance.

a) Lightning

- i. The lightning Conductors shall be made of a minimum 25 mm diameter and minimum 3,000 mm long GI spike as per provisions of IS 2309-1969. A necessary concrete foundation for holding the lightning conductor in position should be made after giving due consideration to maximum wind speed and maintenance requirements at the site in the future. The lightning conductor should be earthed through 20 mm X 3 mm thick GI flat earth pits/earth bus with proper Insulation. Height of Lightning Conductors from Array Structure should be minimum 4 metres.
- ii. Most areas of the State being prone to lightning, Type-II SPDs shall be included as a mandatory requirement.
- iii. Similarly Type I+II SPD should also be provided on the grid side in ACDB or PCU to protect the PCU from damage

b) Earthing

- i. Earthing should conform to IS 3043.
- ii. Earth Continuity wire/conductor should be 3-8 SWG. The thickness of the Conductor should be more than half of the thickest wire used in electric wiring. The total resistance of the continuity conductor should be less than 1 ohms.
- iii. Earthing lead can be of GI/Copper Strip. For each Earth Electrode 2 Leads must be provided.
- iv. Earth Electrode can be of GI Pipe/Plate. Pipe Electrode should be of 40 mm diameter, 4.75 m length (for rocky soil)/2.75 m (for ordinary soil). Plate Electrode should be of 60 cm*60 cm at a depth of 3 m. The thickness of the plate should be 3.18 mm (copper)/6.35 mm (GI). Moistened land should be preferred for Earthing.
- v. Charcoal along with Salt and Lime mixture/ Bentonite in a granular form mixed with water/ Marconite/ Chemical Earthing (Bentonite based/ Graphite based with Aluminum Silicates & Metal Powder) should be provided. The mixture should be inserted into the pipe or put around the plate. The Electrode system should be covered with a cast iron cover plate with a locking arrangement. (Marconite is recommended due to its Very Low resistivity)
- vi. No. of Earthing points to be used:
- vii. One Earthing for all the Structural Conducting Parts
 - One Earthing for Inverter with ACDB, Array JB & Main JB.
 - One Earthing for Lightning Arrester.
- viii. Each array structure of the SPV yard will be grounded properly. The array structures and the lightning conductors are to be connected to earth through a 25 mm X 5mm GI strip.
- ix. The inverters and all equipment inside the control room shall be connected to earth through 25 mm X 5mm tinned copper/GI strip including supplying of material and soldering. Earth bus should be provided inside the control room with 25 mm X 5mm tinned copper/GI strip.

- x. In compliance with Rule 61 of Indian Electricity Rules, 2004 (as amended up to date), all non-current carrying metal parts should be earthed with two separate and distinct earth continuity wires.
- c) Surge Protection Devices (SPD):
 - i. Surge protection devices should be provided on both the DC side and the AC side of the solar PV system. It should have a protection voltage of 2.5 kV & Nominal Discharge current of 5 kA (8/20) μ sec.
 - ii. The DC surge protection devices (SPDs) should be installed in the DC distribution box adjacent to the solar inverter.
 - iii. The AC SPDs shall be installed in the AC distribution box adjacent to the solar inverter.
 - iv. The SPD's earthing terminal should be connected to earth through the above-mentioned dedicated earthing system.

7.5.1.6. CABLES & WIRINGS

- a) The Cable & Wires should comply with IEC60227 or IS694 & IEC60502 or IS1554 BSEL50618 (for DC cables for PV systems).
- b) All copper flexible cables should comply with IS651 and make should be Polycab, Havells or equivalent.
- c) Color code should be followed for overall wiring i.e., red for positive, black for negative, green for the earth.
- d) All cables should run in suitable PVC Conduits. No cable should be directly exposed to sunlight.
- e) Cable Sizes should be as per the Current and Voltage ratings.

7.5.1.7. DISPLAY BOARD:

A display board of size 3 ft x 3 ft that gives a detailed circuit diagram of the system with its description should be provided.

7.5.1.8. DANGER PLATES

The bidder has to provide at least 8 Danger Notice Plates of 200 mm X 150 mm made of mild steel sheet, minimum 2 mm thick and vitreous enameled white on both sides and with inscription in signal red color on the front side as required. The inscription shall be in English and the local language. Out of eight, four danger notice shall have to be provided at PV Power plant & Four-danger notice at Control Room.

7.5.1.9. REMOTE MONITORING SYSTEM:

The Solar PV Power plant must be provided with a remote monitoring system embedded in the Generation Meter. The RMS must be capable of providing ONLINE Generation data (daily, monthly, yearly & total). The features of the RMS along with operational details must be submitted along with the Bid.

These systems should work using GSM/GPRS data communication service (GSM/GPRS service shall be provided by the Empaneled Vendor for 5 years including data charges) or SMS (Short Message Service). They must provide data on power generation every 15 minutes indicating all spikes, dips, etc.

Important features:

- a) Cloud-based Communication

- b) Dashboard display either on PC, Laptop, Tab, smartphone
- c) Internal communication protocols.

*Monthly Report has to be submitted to OREDA.

7.5.1.10. **DRAWINGS & MANUALS:**

Two copies of Engineering, electrical drawings, Installation and CMC manuals are to be supplied. Bidders shall provide complete technical datasheets for each equipment giving details of the specifications along with make/makes in their bid along with the basic design of the power plant and power evacuation, synchronization along with protection equipment.

7.5.1.11. **NET METER :**

The On-grid Solar power plant will be connected to the grid through a net meter as per the OERC guideline No. OERC-Engg. 02/2010/(Vol-IV)/1131 Dated :19.08.2016 or any amendments issued for Net-Metering/Bi-Directional Metering & Their Connectivity with respect to Solar PV Projects single line diagram indicated in this document. The indicative specification of the Net-meter is as follows:

Single Phase Meter:

- Single Phase Two wire, 230VAC, 10-60Amps ISI marked Direct current operated bidirectional Energy Meter, having calibration LED, DLMS, AMR compliance & front sealing facility to be used as a NET meter with Accuracy: 1.0.
- Transparent Box of Engineering Plastic to house above meter with all accessories.

Three Phase Meter:

- Three Phase Four wire, 3x240VAC, 20-100Amps ISI marked Direct current operated bidirectional Energy Meter, DLMS CatB having calibration LED, AMR compliance & front sealing facility to be used as a NET meter for less than 20 kWp LT Consumer with Accuracy: 1.0.
- Transparent Box of Engineering Plastic to house above meter with all accessories

7.5.1.12. **GENERATION METER:**

Single Phase Meter:

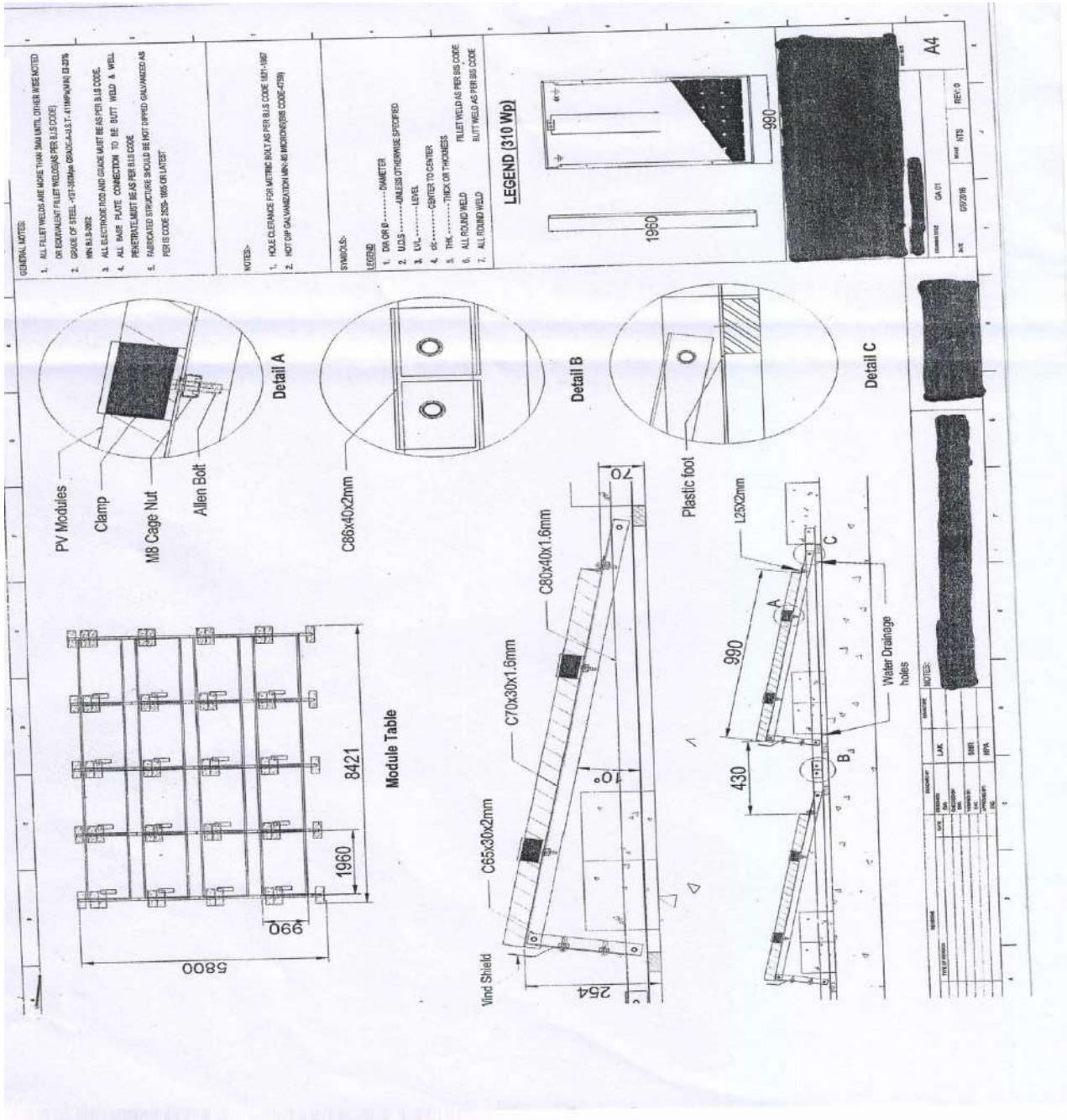
- Single Phase Two wire, 230VAC, 10-60Amps ISI marked Direct current operated Energy Meter, having calibration LED, AMR compliance & front sealing facility can be used as generation meter up to 5 kWp with Accuracy: 1.0.
- GPRS/GSM Modem with connecting cable & antenna for running smoothly up to 5 years for AMR facility.

Three Phase Meter:

- Three Phase Four wire, 3 x 240VAC, 20-100Amps ISI marked Direct current operated Energy Meter, DLMS CatC having calibration LED, AMR compliance & front sealing facility to be used as generation meter up to 20 kWp with Accuracy: 1.0.
- GPRS/GSM Modem with connecting cable & antenna for running smoothly up to 5 years for AMR facility

7.5.2. Appendix Form 2 (Designs and Drawings)

The indicative diagram of module mounting structure is given below:



7.5.3. Appendix Form 3 (Commissioning Report)

The Commissioning Report shall essentially capture the health of the Project at the time of Commissioning along with the various observations which will be captured in accordance with the Applicable Law and Prudent Utility Practices prevailing in Odisha and any general practices followed in the solar industry. The Commissioning Committee will prepare the Commissioning Report. In addition, the OREDA will provide the compliance report as per CRC procedures and this shall be referred along with the Commissioning Report for the issuance of Joint Commissioning Certificate.

The sample Commissioning Report is represented below:

Commissioning Report – Rooftop Solar Power System

Date: [DD MMM YYYY]

RFP no.: [insert RFP no.] dated [DD MMM YYYY]

Reference:

13. NIT no. [insert] dated [DD MMM YYYY]
14. RFP no. [insert] dated [DD MMM YYYY]
15. Letter of Intent no. [insert] dated [DD MMM YYYY]
16. Work Order no. [insert] dated [DD MMM YYYY]
17. Any other correspondence, if any:

This Commissioning Report is prepared for the Bidder [insert name of Bidder] for the Project developed at [insert] village of [insert] block at [insert] district of Odisha.

The Project details of RTS are given below:

Sl. No.	Items	Details
18.	Name of the Consumer	
19.	Address	
20.	Capacity of the RTS	
21.	Net Meter installed	(Yes/No)
22.	Generation Meter installed	(Yes/No)
23.	CMC manual	(Yes/No)
24.	Dos & Don'ts in the form of a booklet	(Yes/No)
25.	Proof of conducting the training programs	(Yes/No)

Tests performed during Commissioning:

Sl. No.	Test	Result
26.	Load Test	
27.	IV Curve	
28.	Earthing Test	
29.	Main Junction Boxes (Current & Voltage)	
30.	Array Junction Boxes (Current & Voltage)	
31.	Continuity Test	
32.	Stress Test	
33.	Visual Inspection	
34.	Anti-Islanding Protection Test	

Hourly Generation Meter Reading on the date of Commissioning:

Sl. No.	Time	Main	Check (if applicable)	Units (kWh) Recorded in Main Meter
1		IMR: FMR: MC:		Units = (FMR-IMR) * MC

Hourly Net Meter Reading on the date of Commissioning:

Sl. No.	Time	Main	Check (if applicable)	Units (kWh) Recorded in Main Meter
1		IMR: FMR: MC:		Units = (FMR-IMR) * MC

*IMR: Initial Meter Reading
FMR: Final Meter Reading
MC: Meter Constant

The above plant was commissioned as per applicable guidelines and the tests performed suggest that the performance of the above plant is satisfactory.

Place: [insert place]

[sign here]
Signature
Name of Authorized Representative of OREDA: [insert name]
Designation: [insert designation]
Odisha Renewable Energy Development Agency (OREDA)
Seal:

Place: [insert place]

[sign here]
Signature
Name of Authorized Representative of DISCOM: [insert name]
Designation: [insert designation]
[DISCOM Name]
Seal:

Place: [insert place]

[sign here]
Signature
Name of Authorized Representative of DRDA: [insert name]
Designation: [insert designation]
District Rural Development Agency (DRDA)
Seal:

7.5.4. Appendix Form 4 (Joint Commissioning/Recommissioning Certificate)

Joint Commissioning Certificate of the Rooftop Solar Power Project

(To be issued by OREDA on the letterhead)

TO WHOMSOEVER IT MAY CONCERN

Ref. no.: [insert]

Date: [DD MMM YYYY]

To

[Successful Bidder's name]

[Address]

[Email id]

[Mobile no.]

Reference:

1. NIT no. [insert] dated [DD MMM YYYY]
2. RFP no. [insert] dated [DD MMM YYYY]
3. Letter of Intent no. [insert] dated [DD MMM YYYY]
4. Work Order no. [insert] dated [DD MMM YYYY]
5. Any other correspondence, if any:

This is to certify that [Name of the Successful Bidder] having its registered office at [address] has successfully commissioned/recommissioned capacity of [insert capacity] kWp Solar Photovoltaic Power Project at [insert village name] village, [insert district name] District in Odisha.

The Joint Commissioning Certificate is issued on the basis of the following documents enclosed:

1. Commissioning Report as submitted by Commissioning Committee
2. Installation report as uploaded on CRC created using the ReSolve Mobile App only
3. No claim/ lien certificate

Place: [insert place]

[sign here]

Signature

Name of Authorized Representative of OREDA: [insert name]

Designation: [insert designation]

Odisha Renewable Energy Development Agency

Seal: